

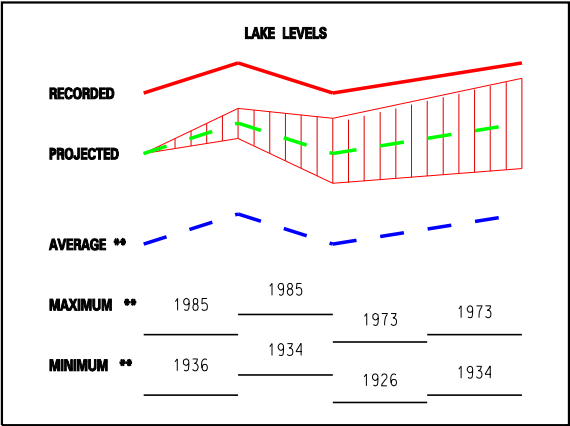
US Army Corps
of Engineers
Detroit District

MONTHLY BULLETIN OF LAKE LEVELS FOR THE GREAT LAKES

APRIL 2013

Water levels for the previous year and the current year to date are shown as a solid line on the hydrographs. A projection for the next six months is given as a dashed line. This projection is based on the present condition of the lake basin and anticipated future weather. The shaded area shows a range of possible levels over the next six months dependent upon weather variations. Current and projected levels (solid and dashed lines) can be compared with the 1918–2012 average levels (dotted line) and extreme levels (shown as bars with their year of occurrence). The legend below further identifies the information on the hydrographs.

LEGEND



The levels on the hydrographs are shown in both feet and meters above (+) or below (–) Chart Datum. Chart Datum, also known as Low Water Datum, is a reference plane on each lake to which water depth and Federal navigation improvement depths on navigation charts are referred.

All elevations and plots shown in this bulletin are referenced to International Great Lakes Datum 1985 (IGLD 1985). IGLD 1985 has its zero base at Rimouski, Quebec near the mouth of the St. Lawrence River (approximate sea level).

MARCH MEAN LAKE LEVELS

(IGLD 1985)

		Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2013	Ft.	600.10	576.21	572.97	570.60	244.69
	M.	182.91	175.63	174.64	173.92	74.58
2012	Ft.	600.16	577.43	574.11	572.05	245.96
	M.	182.93	176.00	174.99	174.36	74.97
	Ft.	602.40	581.10	576.77	573.75	247.28
	M.	183.61	177.12	175.80	174.88	75.37
	Yr.	1986	1986	1986	1986	1952
	Ft.	599.54	576.05	571.03	568.24	242.59
** MIN.	M.	182.74	175.58	174.05	173.20	73.94
	Yr.	1926	1964	1934	1934	1935
** AVG.	Ft.	601.15	578.41	573.82	571.10	245.01
	M.	183.23	176.30	174.90	174.07	74.68

* provisional
** Average, Maximum and Minimum for period 1918–2012

ELEVATIONS REFERENCED TO THE CHART DATUM OF EACH RESPECTIVE LAKE

Information

Recorded water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover map). Providers of these data are the U.S. Department of Commerce, NOAA, National Ocean Service, and Integrated Science Data Management, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment Canada derive historic and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. The Corps also publishes the "Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths," weekly, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. This Monthly Bulletin of the lake levels for the Great Lakes may be obtained free of charge by writing to the address shown on the front cover, by calling (313) 226-6442 or emailing hhpm@usace.army.mil. Notices of change of address should include the name of the publication. This information is available on the internet at <http://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx>.

Great Lakes Basin Hydrology March 2013

The Great Lakes basin received below average precipitation for the month of March. The Lake Erie and Lake Ontario basins received less than half of their monthly precipitation. Over the last year, precipitation has been below average across the Great Lakes basin. Likewise, all of the net basin supplies to the Great Lakes were below average last month as well. The outflows from Lake Superior and Lake Michigan-Huron were below average while the outflows from Lake Erie and Lake Ontario were near average this past month. The tables below list March precipitation and water supply information for all Great Lakes basins.

A comparison of monthly mean lake levels for March to long-term average (1918-2012) shows Lakes Superior and Michigan-Huron were 13 and 26 inches below average, respectively. Lake Michigan-Huron's March water level rose 1 inch from February's level, keeping it 2 inches above the previous March record low set in 1964. Lakes St. Clair, Erie, and Ontario were 10, 6, and 4 inches below average, respectively, last month. Boaters should be aware of hazards to navigation due to continued below average water levels on all lakes.

PRECIPITATION (INCHES)								
BASIN	March				12-Month Comparison			
	2013	Average (1900-2008)	Diff.	% of Average	Last 12 months	Average (1900-2008)	Diff.	% of Average
Superior	1.49	1.73	-0.24	86	27.23	30.51	-3.28	89
Michigan-Huron	1.41	2.15	-0.74	66	29.25	32.44	-3.19	90
Erie	1.18	2.75	-1.57	43	29.48	35.40	-5.92	83
Ontario	0.87	2.67	-1.80	33	30.69	35.71	-5.02	86
Great Lakes	1.29	2.17	-0.88	59	28.96	32.64	-3.68	89

LAKE	March Net Basin Supplies ¹ (cfs)		March Outflows ² (cfs)	
	2013	Average ³ (1900-2008)	2013	Average ³ (1900-2008)
Superior	6,000	46,000	54,000	66,000
Michigan-Huron	137,000	183,000	156,000	172,000
Erie	34,000	72,000	190,000	197,000
Ontario	42,000	75,000	229,000	238,000

Notes: Values (excluding averages) are based on preliminary computations; cfs denotes cubic feet per second.

¹ Net basin supply is the net result of precipitation falling on the lake, runoff from precipitation falling on the land which flows to the lake, and evaporation from the lake. Negative net basin supply denotes evaporation exceeded runoff and precipitation. The net total supply can be found by adding the net basin supply and the outflow from the upstream lake.

² Does not include diversions.

³ Lake Ontario average water supplies and average outflows are based on period of record 1900-2005